on behalf of concerned citizens. You — and the entire EPA — are providing a much needed and appreciated service to all of us.

Yours sincerely,

Doreen Fleming
36 College Ave. #47
Somerville, MA 02144

We are now in the difficult task of cleaning up the devestating effects on our environment. It was purported by Ethyl to be "safe" at low levels.

Please reject Ethyls' application to add MMT to their gasoline.

Thank you.

Patricia B Erickson
1801 Elmen St.
Houston, Tx 77019

12/26/90

William R. Reilly.
EPA Administrator
Wash., D. C. 20460

Dear Mr. Reilly,

I am writing this to urge you to reject Ethyl Corp.'s application to use MMT as an additive in its gasoline.

Ethyl's contention that adding MMT will reduce tail pipe emissions is misleading. The reductions will be negligible, and the health risks will be very large.

Manganese is an extremely toxic metal - we know that it has permanent, severely damaging effects on the brain at high levels. We do not know what effect it has at low levels for long periods, especially on the very young & the old.

We also do not know what effect it will have on our environment. In 1925 Ethyl Corp. introduced lead as an additive to their gasoline.

RICHARD KEMP
4515 N. St. Louis
Chicago, IL
60625-5419

Wm. K. Reilly,
EPA Admins.,
Washington, D.C.
20460

ADOPTION IS LOVE
CELEBRATE NOVEMBER
NATIONAL ADOPTION MONTH

Patrick

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EPA
CORR. CONTROL
42029
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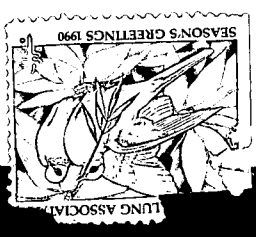


11-30-90

Dear Mr. Reilly,

This is to respectfully request you to REJECT the Ethyl Corporation's application to use MMT.

How can we, in good conscience, allow more gunk to be sent into the air under whatever guise?

Thank you for what you surely will prevent.

Sincerely,
a. Kemp (Mrs R.B.)

November 28, 1990

William K Reilly
Administrator EPA
Washington DC 20460

Dear Mr. Reilly:

Please reject Ethyl's Application to use MMT as a gasoline additive. There appears to be no data about the potential cumulative effects of massive inputs of this toxic metal into the environment. If there's anything our actions of the past 50 years should have taught us, it's to be very, very careful before unleashing more chemicals into our environment.

Sincerely,
Ruth Kreidenier
150 Portola Way
San Bruno CA 94066

255 Dutton Ave,
Sebastopol.
CA 95472.
Nov 15th, 90

William K. Reilly,
E.P.A.
Sir,

I am writing to urge you to reject Ethyl Corporation's application to use MMT as a gasoline additive.

At a time when the EPA has finally succeeded in removing most lead from gasoline, it hardly seems worthwhile to start with another possibly hazardous experiment. There are too many unknowns in the use of manganese, and even "negligible" amounts could tally

up to disasterous results.
As lead did.

Please say "no" to the Ethyl Corporation regarding MMT additives!

Sincerely,
Monique Rubin.

77 Myrtle Blvd
Larchmont, NY 10538
Dec. 29, 1990

Mr. William Reilly
EPA Administrator
Washington, DC

Sir -

I strongly urge you to reject the Ethyl Corporations application to use MMT as a gasoline additive. The disasterous use of lead for 50 years should have taught us something. It does no good to reduce auto exhaust pollutants by using a different pollutant.

The Ethyl Corporation is seeking to serve their own interests and not that of the public — do not approve their request.

Yours truly,

Pincus Leitner

PINCUS LEITNER

January 7, 1991

William K. Reilly
EPA Administrator
Washington, DC 20460

Dear Mr. Reilly:

I am writing to express my concern over the possible effects of MMT as an additive in gasoline. Leading scientists (and the public) fear that MMT could have environmental and public health consequences as similar to those of lead.

I am urging you to reject the Ethyl Corporation's application to use MMT in gasoline. The pollution caused by leaded gasoline is certainly not a mistake the US wants to repeat.

Sincerely,
Christy Thorndill

RECEIVED
EPA
CORR. CONTROL
477
91 JAN 10 A10:35

Honorable William Reilly
Environmental Protection
Administor/Secretary.

Jan 10 '91

Dear Sir:

I was glad to read in the San Francisco Chronicle, Jan. 10 '91 that you had claimed yesterday that environmental issues remains a high priority for the Bush Administration - News to me, I can tell you-

: The environment is among the most important issues before the public (the war may come & go - but the envirnment remains an important factor. ; it should get top billing from Bush himself .. - The people are concerned about their food safety & just as formost their concerns are on the climate.

We are all aware of the shadow hanging over the Planet - the Greenhouse Effect. Wars can come, unfortunately, but hopefully we may not lose sight of the profoud effect which our air & weather have upon the future of the Planet.

We get more polution from our gasolene cars than everything else - & now, right now we should be attending to this. (Europe is way ahead of us in mileage - 42 mpH but here in the US (& probably abroad) the hyrogen gas is the solution to car polution. The car factories need not be retooled & cars can easily be adjusted to Hydrogen & like-fuels.

I wonder if Bush thinks of this at all, being an oil man.

But you Mr. Reilly have a heavy load on your shoulders of real responsibility for our atmosphere. We, the people want to hear this from you.

Sincerly - Isabel Neal

IJ Neal
403 Tucker St.
Healdsburg - Ca - 95448

January 18, 1991

William K. Reilly
EPA Administrator
Washington, D.C. 20460

Dear Mr. Reilly:

I urge you to reject the Ethyl Corporation's application to use MMT as a gasoline additive. We surely don't need to add to the current toxins in our environment & I would hope we can pursue non-polluting options - (ie Solar) to solve the emissions problems we, as a collective people of this Earth, have to face.

Respectfully yours,
Robin Flores

MEMO FROM EILEEN LURIE

1/23/91

Dear Mr. Reilly,

I am writing to urge you to reject Ethyls application to use MMT as a gas additive. Manganese will no doubt add more dangerous pollutants to our environment.

Thank you,

Eileen Lurie

5 Riggs Place

W. Orange, NJ 07052

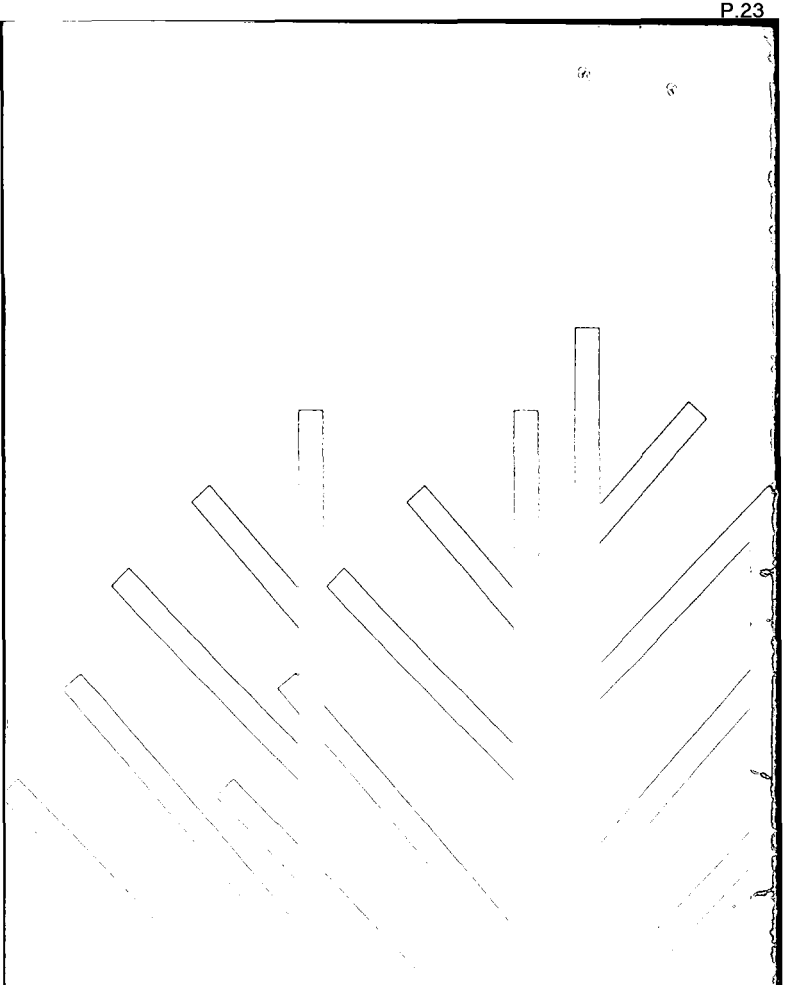
Jan. 21

William K. Reilly,

I'm writing, as an informed and concerned citizen, to urge you to reject Ethyl's application to use MMT (as proposed octane-enhancing gasoline additive) in any way.

Sincerely,

Sandy Stocking
344 N. 102
Seattle, WA. 98133



Ethyl®

Ethyl Corporation
Corporate Communications
330 South Fourth Street
P.O. Box 2189
Richmond VA 23217
PH - (804) 788-5517

Oct. 29, 1990
2700 Center St. Apt. B.
Granite City, Il. 62040

Mr. Wm. K. Reilly
E.P.A.
401 M. St. S.W.
Washington, D.C. 20460

Dear Mr. Reilly:

Ethyl Corporation of America has acted irresponsibly in the past with its lead gasoline additives and is now working very hard to foist yet another heavy metal additive called "HiTec 3000" on the public.

Surely our sad experience with high levels of lead in our environment has made us wise enough not to repeat the problem with the toxic heavy metal, manganese, which is in "HiTec 3000."

You can spare us from this scheme.

Sincerely
Thelma Chapman

ANN SWEET
8 FARM ROAD
WESTON, MASSACHUSETTS 02193

October 25, 1990

William K. Reilly
EPA Administration
Washington, D.C. 20460

Dear Mr. Reilly,

Please do not approve the use of MMT as a gasoline additive. We fear its long term effects on our children's health.

Sincerely,
Ann Sweet

Patricia J. Sinclair
338 Hillcrest Avenue
Trenton, New Jersey 08618

October 31, 1990

William K. Reilly, Administrator
Environmental Protection Agency
Washington, DC 20460

Dear Sir,

The Ethyl Corporation has an application to use manganese as a gasoline additive. Not enough studies have been made on the effect of manganese on humans. It is known, however, that a high dose is a neurotoxin. Please do not grant the use of manganese in gasoline. It can be very dangerous to humans, and the environment should not be polluted any further.

Leaded gasoline was begun to be used in 1925 by the Ethyl Corporation. We found out that it was harmful to health, and it was banned. Is this going to happen all over again with manganese?

I support the Environmental Defense Fund in asking you to reject the application to use manganese. I come from a highly polluted area here in Trenton, and I don't want any further risk to my health. Please proceed cautiously.

Thank you for your attention.

Sincerely,
Patricia Sinclair

HOTEL & TRAVEL INDEX

GAIL KENNON
BUSINESS MANAGER

500 PLAZA DRIVE
SECAUCUS, NEW JERSEY 07096
PHONE: (201) 902-1660
TELEX: 6720637
FAX: 201-319-1628

THE ESSENTIAL AND
INDISPENSABLE HOTEL DIRECTORY
FOR THE TRAVEL AGENT

11/12/90

Dear Mr. Reilly -

I'm sorry I have'nt time for a more formal missive but I don't + this could be an emergency.

Please, under no circumstances, approve the application of the Ethyl Corporation to add MMT to gasoline.

Please.

Gail Kennon

PUBLISHED QUARTERLY BY REED TRAVEL GROUP

William K. Reilly, Administrator
U.S. Environmental Protection Agency
401 M Street
Washington, D. C. 20460

Dear Mr. Reilly,

The hard-won removal of most lead from gasoline represents one of EPA's most significant public achievements. Now the Ethyl Corporation is asking the EPA to approve a gasoline additive called HiTec 3000, which is manganese-based and toxic. It is a heavy metal known to produce symtoms of Parkinson's disease, taken in high doses. Long term effects on human health are unknown.

The Ethyl Corporation would use the U.S. population as test subjects in a very profitable experiment of chronic exposure to toxic heavy metal. I strongly urge you to deny the Ethyl Corporation's application for HUiTec 3000.

Sincerely,

Michelle Lieberman

Nov. 13, 1990
1692 Norway Rd.
Kendall, N.Y. 14476

Dear Administrator Reilly,

Please reject Ethyl's Application to use MMT as an octane-enhancing gasoline additive. We've had enough tragic results with Ethyl's lead. Our Society cannot afford such a repetition.

Sincerely,
Rudy McGinley

Nov 10, 1990

Admin. Wm K. Reilly
EPA
401 M St, SW
Washington, DC 20460

Dear Mr. Reilly,

I just found out about Ethyl Corporation's application for Hi-Tec 3000 approval. I am strongly against any such toxic manganese-based gasoline additives, and feel we should do all we can to clean up our world's air, rather than adding more potentially toxic chemicals in the name of "profit". Please deny Ethyl Corporation's approval application.

Thank you.

Sincerely yours,
Anga Rebane
745 Champagne Rd
Incline Village, NV 89451

Nov 15-1990

William K. Reilly, Administrator
U.S. Environmental Protection Agency
401 M Street
Washington, D. C. 20460

Dear Mr. Reilly,

The hard-won removal of most lead from gasoline represents one of the EPA's most significant public achievements. Now the Ethyl Corporation is asking the EPA to approve a gasoline additive called HiTec 3000, which is manganese based and toxic. Manganese is a heavy metal known to produce symtoms of Parkinson's disease when taken in high doses. Long term effects on human health are unknown.

The Ethyl Corporation would use the U.S. population as test subjects in a very profitable experiment of chronic exposure to toxic heavy metal. I strongly urge you to deny the Ethyl Corporation's application for HiTec 3000.

Sincerely,

Mona J. Christenson-Fansher

Barry E. Fansher

BARRY E. FANSHER

M. J. Christenson
9194 Lander
Westminster, CO
80030

NHES

November 10, 1990

25 Upper County Rd., Pt. 2
Dennisport, MA 02639

EPA Administrator William K. Reilly
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Reilly:

First of all, I am very pleased that President Bush appointed a man of your calibre to head of the EPA.

The reason for this letter is to urge you and the EPA to reject the application by the Ethyl Corporation to approve MMT (methy cyclopentadienyl manganese tricarbonyl) as a gasoline additive to improve octane performance.

We do not know the possible dangerous health hazards of long-time use of MMT ~~that~~ but from what we do know is that ~~it~~

manganese in a high dose can cause irreversible brain damage structurally. I have 2 mentally ill sons, and the heartache, and difficulties our family has & is going through I wouldn't wish on anyone ever.

I firmly believe we should try to make life more simple rather than more complicated.

I urge that this new application by the Ethyl Corporation be firmly rejected.

Thank you.

Sincerely,

Barbara W. Hart

(Mrs.)

Nov 14

60 Kingston Rd
Kensington
Ca 94707-1334.

Dear Mr Reilly

Let us not jump out of the frying pan into the fire by permission of a new toxic additive, Ethyly Corp's manganese based "Hi Tec 3000" to gasoline, in order to reduce emissions of hydrocarbons and nitrous oxides.

In our local area (SF Bay Area) gas companies, notably Chevron, are getting rid of surplus Benzyne in our gasoline, which also makes for unhealthful emissions. Walking my dog on windless mornings I try to hold my breath when smelly cars pass on the hill, & no doubt my own little Honda is doing it's share.

We need a cheap, very small electric car for doing small round town errands, which would almost eliminate urban smog in most cities, and for longer commuters, a somewhat

longer distance larger electric car that could be re-charged at special parking meters during work.

We must simply plan to get away from gasoline powered transport, the sooner the better.

Yours sincerely

Clare Millikan

6609 Shady Brook Ln #3176
Dallas, TX 75206

November 13, 1990

William K. Reilly
Environmental Protection Agency
Washington, DC 20460

Dear Mr Reilly:

I am writing to ask you to reject the Ethyl Corporation's application to use the gasoline additive methylcyclopentadienyl manganese tricarbonyl (MMT). Please immediately suspend all currently permitted use of manganese as a gasoline additive.

Manganese is a demonstrated human neurotoxin, with persistent & irreversible pathological effects on brain structure resulting in severe impairments in movement & mental state. There is evidence that it can break DNA, which may indicate cancer-causing potential. We do not know what a safe level is, particularly

for the young.

Please take a lesson from history. The current epidemic of lead poisoning was in part caused by lead gasoline additives. Please don't let us repeat this tragic mistake.

Thank you very much for your consideration.

Sincerely,

Elizabeth Anne Booth MD

10-20-90

Administor William K. Reilly
Environmental Protection Agency
401 M. Street SW
Washington DC 20460

Dear Mr Reilly

This letter is in regards to Ethyl Corp's application for approval to market HITEC 3000.

In these times of Global concern & finally, awareness of our fragil planet & what we humans have done to it, I do not feel that approval for this product is prudent. We need more efficient, less environmently hazardous fuel - not additives that only add to the polution problem.

If all these people succeed in their destructive ways - what will be left for our children & grandchildren. I am strongly urging you to PLEASE

Mr. William Reilly
EPA
401 M St. SW
Washington, D.C. 20460

October 20, 1990

Dear Mr. Reilly,

I am writing to urge you to deny Ethyl Corporation's application for "Hi-Tec 3000", which contains the toxic heavy metal manganese! The similarity between Ethyl's introduction of lead additives and this attempt to add manganese is both striking and frightening. Please reject their application!

Sincerely, Brenda J. Mickens
David L. Nadeau
1875 So. Lexington Ave.
Mendota Hts, MN. 55118

Consider the impact on our atmosphere, on our world and turn down Ethyl Corp's Request. We do not need additives, we need real solutions to the energy problems.

Thank you

Margaret J. Enders
P.O. Box 110776
Anchorage, Ak 99511

William K. Reilly, Administrator
U.S. Environmental Protection Agency
401 M Street
Washington, D. C. 20460

Dear Mr. Reilly,

The hard-won removal of most lead from gasoline represents one of the EPA's most significant public achievements. Now the Ethyl Corporation is asking the EPA to approve a gasoline additive called HiTec 3000, which is manganese based and toxic. Manganese is a heavy metal known to produce symtoms of Parkinson's disease when taken in high doses. Long term effects on human health are unknown.

The Ethyl Corporation would use the U.S. population as test subjects in a very profitable experiment of chronic exposure to toxic heavy metal. I strongly urge you to deny the Ethyl Corporation's application for HiTec 3000.

Sincerely,

Lewis & Linda Schwerin

Nov. 9,1990

Mr. William K. Reilly
EPA Administrator
Washington, DC 20460

Dear Mr. Reilly:

I urge you not to approve Ethyl Corporation's request to add MMT to gasoline.

This is the same company that introduced lead many years ago. Ethyl would have you believe that MMT is harmless. That assumption is not proved.

MMT may have toxic effects so please do not let it be put in our fuel.

Sincerely,

Susan Miller

Susan Miller
145-17 33 Ave.
Flushing, NY
11354

William K. Reilly, Administrator
U.S. Environmental Protection Agency
401 M Street
Washington, D. C. 20460

Dear Mr. Reilly,

The hard-won removal of most lead from gasoline represents one of the EPA's most significant public achievements. Now the Ethyl Corporation is asking the EPA to approve a gasoline additive called HiTec 3000, which is manganese based and toxic. Manganese is a heavy metal known to produce symtoms of Parkinson's disease when taken in high doses. Long term effects on human health are unknown.

The Ethyl Corporation would use the U.S. population as test subjects in a very profitable experiment of chronic exposure to toxic heavy metal. I strongly urge you to deny the Ethyl Corporation's application for HiTec 3000.

Sincerely,

Marilynn Jacobs

Nov. 19, 1990

Mr. William K. Reilly
EPA Administrator
Washington, DC 20460

Dear Mr. Reilly:

We urge you not to approve Ethyl Corporation's request to add MMT to gasoline.

MMT has yet to be proven safe. Ethyl Corp. is the same company which put lead into gas years ago.

Please do not allow MMT to be added to fuel.

Bill Kennedy
1173 Pine Ridge
Bushkill, Penna
18324

Att. William K. Reilly

We read in the EDF News Letter for Oct. 1990 that the Ethyl Corporation's new gasoline additive MMT is probably out of the Lead-frying pan into a Manganese fire!

Please! Please! Please!

Protect us from this new disaster!

Much of the world holds that we come back - reincarnate!

Will we want to come back to cope with what we are doing to the (our!) future day by day?!

Please - Refuse the Ethyl Corp.'s application To use MMT!

Concerned Citizens,

Earl Maze

Mary E. Maze

BILL R. OLIVER

11-15-90

DEAR MR. REILLY.

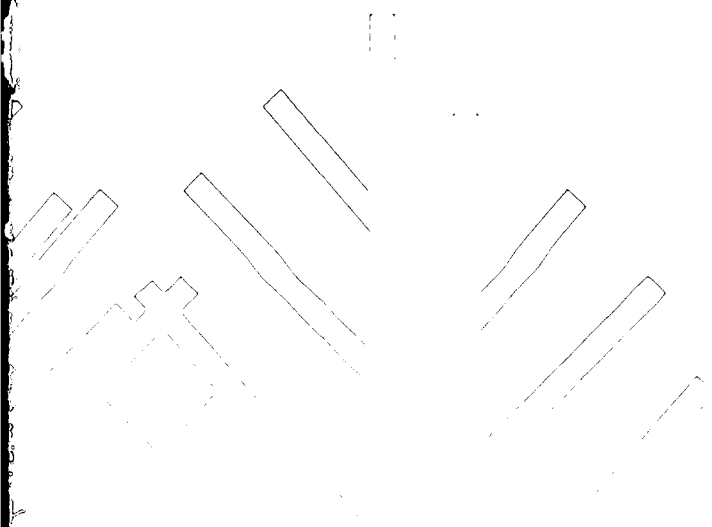
I'M IMPRESSED WITH THE ETHYL CORP.'S HITEC 3000 PERFORMANCE ADDITIVE & WITH THEIR RESEARCH THAT HAS BEEN DONE TO PROVE HITEC 3000 IS SAFE & WOULD IMPROVE OUR AIR QUALITY AS WELL AS REDUCE OUR OIL CONSUMPTION BY 30,000,000 BBLS/YEAR.

I'M ENCLOSING A COPY OF ETHYL'S BROCHURE ON HITEC 3000 & HOPE YOU WILL GIVE IT YOUR FAVORABLE CONSIDERATION.

Bill R. Oliver
310 AMERICANA
SHREVEPORT, LA
71105

HiTEC® 3000 Performance Additive

Clean Fuel for America's Future



Using HiTEC 3000 Performance Additive In Gasoline

HiTEC 3000 Performance Additive is a gasoline additive that has significant octane-enhancing capabilities. Ethyl Corporation has just completed the most extensive series of tests ever undertaken by private industry to evaluate and document the effect this additive has on automobile tailpipe emissions. A second purpose of the testing program was to determine the implications for air quality if HiTEC 3000 were used in U.S. gasoline.

Although widely used in Canada for more than a decade, HiTEC 3000 has not been allowed in unleaded gasoline in the United States because of a belief that the product might adversely affect emission control systems. However, the latest tests using cars with new-technology catalytic converters demonstrate there is no negative effect on these systems. The tests also indicate that HiTEC 3000 causes a decrease in carbon monoxide (CO) emissions and a notable decrease (20 percent) in nitrogen oxide (NOx).

Testing Program For HiTEC® 3000 Performance Additive

The benefits of HiTEC 3000 Performance Additive have been proven by the largest, most comprehensive set of tests ever undertaken by private industry in support of a waiver request.

- EPA participated in the test protocols.
- EPA-preferred testing and analysis organizations were used.
- Ethyl's test program has taken nearly two years and millions of dollars.

The results show that:

- HiTEC 3000 reduces overall emissions by 1.7 billion pounds by 1999.
- NOx, a key component of urban smog, is significantly reduced by 20 percent.
- Catalyst efficiency is not impaired and actually is improved with mileage.

Ethyl Corporation may soon be able to market a product in the United States that will reduce harmful pollutants in the environment. We have asked the U.S. Environmental Protection Agency (EPA) to approve the use of a gasoline additive known as HiTEC® 3000 Performance Additive.

This represents an exciting opportunity for everyone interested in our company. We are confident that the facts support the approval of HiTEC 3000 for use in the United States, and we want to share with you the impressive results of our tests on this product.

In the following pages, you will read about the most extensive series of driving tests ever performed on a gasoline additive. These results were presented to the EPA, which must grant or deny our waiver application by the fall of 1990.

Our tests show that the use of HiTEC 3000 reduces overall regulated automobile tailpipe emissions, including nitrogen oxide (NOx), one of the most harmful pollutants and a major component of urban smog. Our tests found that one drop of HiTEC 3000 Performance Additive in a gallon of gasoline not only boosts octane, but also provides a clear environmental benefit. If all gasoline sold in the United States contained HiTEC 3000, by the year 1999 there would be an annual net reduction of approximately 1.7 billion pounds of pollutants into our atmosphere.

Additionally, our tests indicate that this cost-effective additive will save some 30 million barrels of crude oil annually, thereby reducing the U.S. trade deficit by $540 million a year.

We hope to be given the green light for HiTEC 3000 in the fall so that the American driving public can reap the benefits of lower automobile emissions.

HiTEC 3000 Performance Additive And Catalyst Systems

As part of the comprehensive series of tests, Ethyl checked "catalyst conversion efficiency" — the ability of automobile catalysts to convert the regulated emissions of hydrocarbons (HC), carbon monoxide (CO) and nitrogen oxide (NOx) to non-regulated materials.

The driving tests were conducted on a 48-car fleet for a total of more than three million test miles. Half of the cars of each model group were run on "clear" test fuel. The other half were run on clear fuel with HiTEC 3000 added.

The results:

- After fleet cars had accumulated 75,000 miles, Ethyl analyzed them for conversion efficiency.
  - When compared with conversion efficiencies of catalysts run on clear test fuel, those run with HiTEC 3000 were found to be the same for HC, approximately 1.1 percentage points better for CO and 3.3 percentage points better for NOx.
- Fleet cars were checked after 50,000 miles for performance of oxygen sensors. For each model, the oxygen sensors were removed from each automobile and individually tested.
  - The results showed no difference in performance of the oxygen sensors from cars run on the clear fuel versus cars run on the same fuel containing HiTEC 3000.
- Fleet cars also were tested at the end of 75,000 miles to determine if catalyst plugging occurred. This was done by measuring the pressure level of the exhaust before it enters the catalyst.
  - There was no evidence of catalyst plugging on any of the vehicles.

The results of all these tests clearly demonstrate that use of HiTEC 3000 does not cause catalyst plugging, nor does it degrade the performance of the automobile's emission system. In fact, catalyst efficiency is improved.

HiTEC 3000 in gasoline has other benefits as well.

- It allows refiners to reduce highly toxic aromatics such as benzene in gasoline.
- It also reduces crude oil refining requirements, which means that crude oil supplies will go further and production costs should decrease.

As a result, the consumer will benefit, and the national interest will be served.

Virtually everyone who has studied America's air-quality problem has concluded that it is a difficult, complex problem with no single, simple solution. Cleaner air will require a wide range of policy actions that address all sources of pollution for both the short- and long-run. Our test results show that HiTEC 3000 can play an important role in the quest for clean air. HiTEC 3000 can be on the market shortly after it is approved by the EPA, and reduced NOx emissions from automobiles will occur in direct proportion to its use.

HiTEC 3000 reduces auto emissions, especially NOx. It's economical. It's readily available. And it reduces our dependence on foreign oil.

EPA Waiver Request

As a result of these new tests, Ethyl Corporation has asked the Environmental Protection Agency for a waiver under the Clean Air Act to allow the use of HiTEC 3000 in gasoline at a concentration of 1/32 gram of manganese per gallon. That's one drop in a gallon, or about a half-teaspoon for a 20-gallon tank. With EPA approval, we will market HiTEC 3000 for use in all U.S. gasoline.

Canada And HiTEC 3000: A Decade Of Use

HiTEC 3000 Performance Additive was introduced into gasoline in Canada in 1978 and has been in continuous, widespread use since that time. Canada has found HiTEC 3000 to be a safe, economical and beneficial component of gasoline.

Canadian automobiles have accumulated more than 400 billion miles using gasoline treated with the product, without any significant problems relating to vehicle exhaust emission systems or to air quality. HiTEC 3000 has consistently passed the periodic reviews made by the Canadian government.

- In 1984, Environment Canada tested 15 cars from 1983-85 model-years equipped with three-way catalyst systems meeting U.S. emissions standards. The cars were "in-use" vehicles that were using fuel containing the Canadian version of HiTEC 3000.
  - The results found that "these cars would not exceed the proposed hydrocarbon level of 0.41 gram per mile when test results were extrapolated to 50,000 miles."
- In 1986, the Canadian General Standards Board, after conducting a study on emission system durability, found that Canadian warranty claims on emission components were no different from comparable claims in the United States. The board recommended the additive's continued use in Canada.

The effect of the product on the Canadian environment also has been studied extensively. Airborne manganese levels are not significantly different in Toronto, where HiTEC 3000 is widely used, than they are in corresponding measurements in the United Kingdom, Australia and the United States, where HiTEC 3000 is not used in most gasoline.

number. The costs for accomplishing this improvement are minimal — as much as two-thirds less than comparable processing costs.

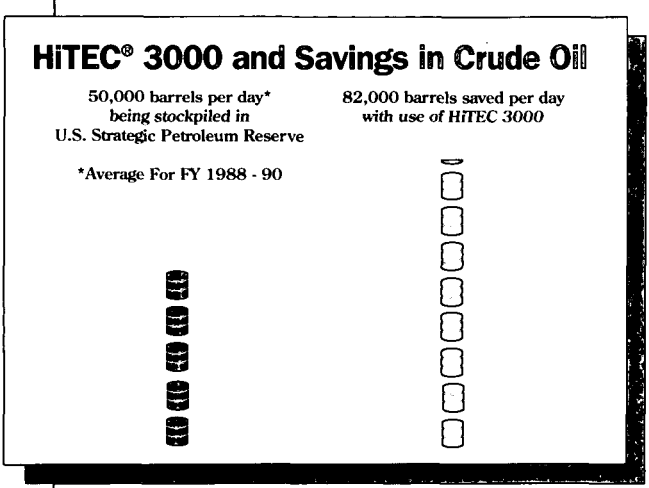
HiTEC 3000 has significant benefits for refiners.

- Since it raises the pool octane quality, it reduces the amount of refining that is required. As a consequence, refiners can lower the toxic aromatics used in their processes.
- Process yields are improved and refinery energy requirements are reduced — creating a savings in crude oil and a reduction in emissions from refinery furnaces.

A study done by Turner, Mason and Company, a leading research firm specializing in refinery economics, found that using HiTEC 3000 at our recommended dosage per gallon would reduce U.S. refinery emissions by:

- 11 million pounds a year for nitrogen oxide (NOx)
- 3 million pounds for carbon monoxide (CO)
- 1.1 million pounds for particulates
- 150,000 pounds for sulfur oxide (SOx)

The 82,000 barrels of crude oil per day to be saved with HiTEC 3000 is considerably larger than the 50,000 barrels per day being stockpiled in the U.S. Strategic Petroleum Reserve for use in a worldwide emergency or oil embargo.



Total Pollutant Reduction

The recent history of environmental actions in the United States has given policy-makers a substantial amount of experience in dealing with complex environmental issues. One important tenet that has been demonstrated in recent experience, unfortunately, is that it does no good to reduce a pollutant from one medium simply to discharge it into another one. Likewise, it is poor policy to create a final product that is cleaner if the manufacturing process becomes dirtier. Therefore, to make real progress, we must reduce total pollution from the entire manufacturing/consumption spectrum.

Ethyl Corporation's HiTEC 3000 Performance Additive produces a positive effect on emissions at the refinery, on emissions during distribution and on emissions from the automobile tailpipe.

Total Pollutant Reduction

Use Of HiTEC® 3000 Performance Additive
(pounds per year)

Pollutant	1999
Nitrogen Oxide	644,000,000
Carbon Monoxide	988,000,000
Hydrocarbons*	0
Particulates	1,100,000
Sulfur Oxides	150,000
Aromatics	35,200,000
Formaldehyde	3,500,000
Total	**1,671,950,000**

*assumes use of HiTEC® 3000 Performance Additive replaces aromatics in commercial fuel

HiTEC 3000 Reduces Emissions Of Nitrogen Oxide

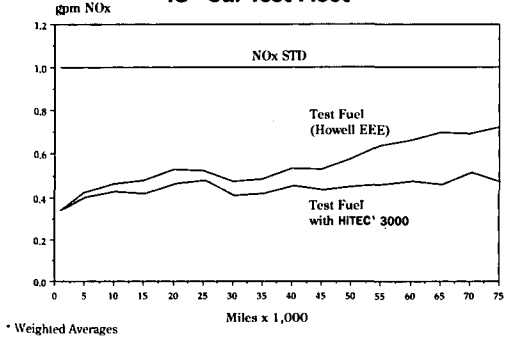
Ethyl's extensive fleet-testing program demonstrates that use of HiTEC 3000 in gasoline significantly reduces automotive emissions of nitrogen oxide (NOx) by 0.11 grams per mile or approximately 20 percent. Government studies have shown that transportation sources are responsible for about 45 percent of the NOx emissions. Thus, use of HiTEC 3000 Performance Additive will reduce automotive emissions of NOx by up to 633 million pounds annually by 1999.

NOx emissions can produce a variety of adverse effects, including direct health effects and environmental effects. Among the nitrogen oxides are those potentially the most injurious to health, causing significant respiratory problems such as decreased lung function and increased susceptibility to respiratory infection.

More important, nitrogen oxides are key components in the production of ozone in urban smog. Because ozone has been shown to cause serious lung damage, it is imperative that NOx be controlled. Some scientists have proposed that the U.S. national control strategy for urban smog should be based on reductions in nitrogen oxide.

Nitrogen Oxide Emissions

48 - Car Test Fleet*



* Weighted Averages

HiTEC 3000 Reduces Total Particulate Emissions

The combustion of gasoline containing HiTEC 3000 reduces total particulate emissions and results in very low manganese emissions. Measurement of airborne particulates emitted from automobiles operating in Ethyl's extensive fleet test showed cars using HiTEC 3000 emitted about 45 percent less particulates than cars using clear fuel. Particulate emissions averaged 0.0004 grams per mile for the cars using HiTEC 3000 and 0.0007 gm/mi for cars using clear fuel.

Results in Low Manganese Emissions

The amount of airborne manganese emitted from the HiTEC 3000 automobiles represented about 0.4 percent of manganese used in the fuel. Thus, a current model automobile fueled on gasoline containing HiTEC 3000 would release 0.06 grams of manganese on a yearly basis (assuming 12,000 miles driven per year and 25 miles per gallon). Approximately 0.5 grams of airborne manganese, in total about the size of a peanut, would be emitted over the 100,000-mile life of the car. These emissions of manganese (an essential element for human health) are infinitesimal and of no concern from a public health or environmental perspective.

HiTEC 3000: Effects On Refining

HiTEC 3000 not only increases flexibility in gasoline blending but also has a beneficial effect on refinery processing by reducing plant emissions, lowering the dependence on aromatics and saving up to 82,000 barrels of crude oil per day.

With the addition of a drop of HiTEC 3000 additive per gallon of gasoline (less than a 1/2 teaspoon for a 20-gallon tank), the octane level of gasoline is increased by as much as one octane

HiTEC 3000 used in gasoline raises octane up to one octane number. This allows refineries to reduce processing "severity," which provides them with the flexibility to take these environmentally desirable actions:

- First, to directly reduce point-source emissions from the refinery itself.
- Second, the octane boost from HiTEC 3000 allows the refiner to reduce the level of aromatics in the final product, including such toxic components as benzene.

Lowers RVP of the Fuel

Since HiTEC 3000 raises octane without raising the volatility of gasoline, it provides the refiner flexibility to lower the Reid Vapor Pressure (RVP) of the fuel, should government regulation make this necessary. This means there will be less evaporative loss in distribution and from vehicles. These evaporative losses are considered important enough by regulators to have prompted local regulations on fuel nozzles at gas stations as well as other sources of evaporative emissions.

Reduces Tailpipe Emissions

Finally, HiTEC 3000 reduces tailpipe emissions. Ethyl's extensive fleet-testing program has demonstrated that carbon monoxide is reduced by 0.22 gram per mile (gm/mi) and nitrogen oxide by 0.11 gm/mi averaged over 75,000 miles. The company believes that hydrocarbons will show no increase under commercial conditions where HiTEC 3000 will displace a portion of the aromatics currently used in gasoline.

Total Emissions Reduced

Ethyl has estimated that total emissions from all sources will be reduced by approximately 1.7 billion pounds in 1999, as cars with advanced emissions technology become the majority of the fleet in use in the United States.

Health/Environmental Aspects Of Use

All living organisms require manganese to sustain life. The average person consumes from 2,000 to 9,000 micrograms a day in his or her diet. In fact, most vitamin tablets with minerals contain from 1,000 to 10,000 micrograms of manganese. Manganese also can enter the body through the air, and public health officials worldwide have conducted studies concluding that current environmental levels are not associated with any adverse health effects. Tests have shown that HiTEC 3000 will not appreciably increase environmental levels of manganese.

In Canada, studies by the Ministry for Health and Welfare, the Canadian General Standards Board, Environment Canada and Transport Canada have determined that the product has no adverse environmental effects. Evidence indicates that use of this additive has little or no measurable effect on levels of airborne manganese. This has been confirmed by measuring manganese emissions during Ethyl's extensive fleet test.

In the United States, the EPA has examined this matter and issued its findings in a health assessment document. This document indicates that manganese emissions at levels found today present no public health concerns, even around large point-source emitters such as steel mills and power plants. It is important to note that even with universal use of this fuel additive, manganese levels in the environment would not begin to approach those that result from these source points.

Other regulatory agencies around the world have evaluated the health and environmental effects of this additive. The Australian Commonwealth Department of Health concluded: "The small increase in airborne manganese from the use of MMT (HiTEC 3000) in petrol is 3-4 orders of magnitude [i.e., 1,000 to 10,000 times] lower than the level required to produce toxic symptoms of manganese exposure, even in areas of high traffic density, and no health risk from the use of MMT is likely."

Ethyl Corporation

Ethyl Corporation is a Fortune-500 company based in Richmond, Virginia. The company produces and markets performance chemicals for the petroleum and plastics industries as well as high-technology chemical intermediates for detergents, electronics, agricultural chemicals and pharmaceuticals. Ethyl also owns First Colony Life Insurance Company.

With net sales and insurance revenues in 1989 of $2.4 billion and net income of $231 million, Ethyl employs approximately 5,500 people at some 20 manufacturing plants, research and development laboratories and other facilities throughout the United States, in Canada and around the world.

Ethyl Petroleum Additives Division is a leading worldwide producer of specialized additives designed to improve the performance of automotive and industrial fuels and lubricating oils. The Chemicals Group has developed unique processes for producing a wide range of specialty chemicals. Ethyl produces a number of essential components of herbicides and pesticides for agriculture as well as brominated flame retardants used in the plastics and electronics industries. Ethyl is the major U.S. producer of the active ingredient for ibuprofen, a leading pain reliever.

First Colony Life Insurance Company, based in Lynchburg, Virginia, is one of the fastest growing life insurance firms in the nation.

To obtain additional copies of this brochure or more information about Ethyl's HiTEC 3000 Performance Additive, please contact Corporate Communications at (804) 788-5517.

Ethyl®

11/26/90

Dear Mr. Reilly,

Having just finished an article in the Environmental Defense Fund newsletter concerning the suggested use of MMT in gasoline, I felt I had to write to you. If it is not your job to prevent unhealthy schemes such as I understand this to be - then what could your job possibly be? Persian Gulf & all other problems notwithstanding, I see your job as the most important in the government. If we do not protect our environment nothing else will matter. We need you to safeguard our home to the best of your ability. So if you are paying attention to us - the citizens out here cannot me in. I care & I'm paying attention.

Sincerely,

Janet Fox
111 Montford Ave.
Mill Valley, CA
94942

William K. Reilly, Administrator
U.S. Environmental Protection Agency
401 M Street
Washington, D. C. 20460

Dear Mr. Reilly,

The hard-won removal of most lead from gasoline represents one of the EPA's most significant public achievements. Now the Ethyl Corporation is asking the EPA to approve a gasoline additive called HiTec 3000, which is manganese based and toxic. Manganese is a heavy metal known to produce symtoms of Parkinson's disease when taken in high doses. Long term effects on human health are unknown.

The Ethyl Corporation would use the U.S. population as test subjects in a very profitable experiment of chronic exposure to toxic heavy metal. I strongly urge you to deny the Ethyl Corporation's application for HiTec 3000.

Sincerely,

Sheree F. Carter

28 Dec 1990

Mr William K Reilly
EPA
Washington DC 20460

Dear Mr Reilly

I do not believe the addition of MMT as a gasoline additive will be of great enough benefit to approve the use.

Please reject the application

thank you

Sincerely
Lelia Monaghan

E 0460

a Note from

Marylyn A. Schiller

(Mr. Reilly)
please reject Ethyls'
application to use MMT.

Lead poisoning is an epidemic
in the U.S. We do not know
what a "safe" level of
manganese exposure is,

particularly for the young or the
aged who may be at
increased risk. Society can-
not afford to repeat the public
health catastrophe associated
with the use of lead in
gasoline.

Thanks,
Marylyn

Leamy House 28
115 Roumfort Rd
Philadelphia, PA 19119

Mr. Wm. K. Reilly, Administrator
EPA
Washington, DC 20460

Dear Sir,

I have just recently learned about the request of the Ethyl Corp. to use manganese tricarbonyl as an additive in gasoline. While I'm not sure where the matter stands, I sincerely hope that EPA does not approve this request until the public can have adequate assurance by independent researchers that this would not create a health hazard over time.

Sincerely,

Kathryn J. Bort

WILLIAM K. REILLY
Administrator
Environmental Protection Agency
401 M Street S. W.
Washington, D. C., 20460

Dear Sir:

The Ethyl Corporation of America is asking you to approve a gasoline additive called "Hi-Tec 3000". This substance contains manganese, a TOXIC HEAVY METAL known to produce symptoms of PARKINSON'S DISEASE at high doses; adding it to gasoline will release large amounts of manganese into the environment. You realise the addition of LEAD to gasoline has produced similar problems and is known to cause terrible problems to humans.

This may be profitable to the Ethyl Corporation but it will be very costly to us everyday people who are exposed to it. There is a virtual lead poisoning epidemic among this nation's children from all levels of life right now and much of it comes from cars that burned leaded gas for the past 65 years. Cleaning up this contamination will be both slow and expensive. How much money will the gasoline companies be paying toward it?????

We do NOT want another poisonous additive in gasoline. There is NO reason to expose the environment to another hazard (aside from the profit motive for a private business...). Shame on them for this outrageous proposal! and shame on you if you allow it.

Sincerely, from a fellow earthling

Lina Herrera

LINA HERRERA
6154 SAWMILL ROAD
PARADISE, CALIFORNIA 95969

Holly Hagan
12335 Santa Monica
LA, CA 90025

William K. Reilly
EPA Administrator
Washington, DC
20460

Dear Mr. Reilly,

Please reject the Ethyl Corporation's application to use "octane-enhancing gasoline additive" methylcyclopentadienyl manganese tricarbonyl (MMT).

The toxic effects of manganese are not all known to approve this known neurotoxin. I urge you to reject its usage, and to suspend all currently permitted use of manganese as a gasoline additive.

Sincerely,
Holly Hagan

Oct 19, 1990

Administrator Wm. K. Reilly
EPA
401 M St., SW,
Washington DC. 20460

Dear Sir!

We are very concerned about our environment + the toxic substances which are affecting our planet. Already, our air, water + climate are affected by pollutants.

We strongly urge you to to deny Ethyl Corporation's application for "Hi TEE 3000", a highly toxic gasoline additive - We don't need more toxics in our environment!

Sincerely,
Fay + Leo Kessler

LEO J. & FAY J. KESSLER
1240 HARVARD STREET, APT. 3
SANTA MONICA, CA 90404

6 Nov 90

Mr. Reilly

I understand that Ethyl Corporation is applying to market a gasoline additive with methycyclopentadienyl manganese tricarbonyl (MMT) in it.

I urge you to reject their application and suspend any permission currently granted for manganese as a gasoline additive in the United States.

Permission to market MMT would be a giant step backwards in our effort to clean up our air.

Sincerly yours,

James S. Barber
PO Box 60121
San Diego, CA
92166

PHIL & LOU EMMONS
7805 TRYON GROVE RD.
RICHMOND, IL 60071

11/9/90

Dear Mr. Reilly,

I am writing for my husband and myself to ask that you reject Ethyl's application to use MMT in its gasoline.

The long term dangers of this additive have not been adequately assessed. God forbid we should repeat another fiasco like the lead gasoline we have finally gotten rid of and the problems it created.

Thank you for your support in defeating this measure.

Lou + Phil Emmons

[illegible] OPTS

435 19th Avenue
San Francisco, CA
94121

October 31, 1990

William K. Reilly
EPA Administrator
Washington DC
20460

Re: Ethyl Corporation's application to use MMT

I was appalled to learn that the Ethyl Corporation is trying to get EPA approval for a new gasoline additive containing manganese. I couldn't believe it when it was pointed out that the arguments in favor of MMT were almost the same ones used when lead was first introduced as an additive.

Please reject this new application and suspend all currently permitted use of manganese as a gasoline additive. The health of our children is at stake.

Sincerely,

[illegible]

2308 Cottage San Rd.
Silver City, NM 88061
November 2, 1990

William K. Reilly
Environmental Protection Agency
401 M. Street S.W.
Washington, DC 20460

Dear Administrator Reilly:

Thank you for all you are doing to limit toxic changes to our environment. I hope your attention has been turned to Ethyl Corporation's "HiTec 3000" proposal, which would allow a manganese-based gasoline additive. We know manganese is toxic. Please do not let us find out ~~that~~ the hard way that manganese extruded into our environment in this way (exhaust) produces toxic symptoms.

HiTec 3000 is supposed to help control emission volumes. It seems likely that

improving standards for vehicle gas mileage would be more effective without experimenting with our environment.

Thank you for your attention.

Respectfully yours,
Jennifer S. Hammond